

Claim Amendments

Deletions Double Bracketed (5 words or less) and/or Strikeout - Additions Underlined

Please amend the claims as indicated below.

Claim 1. (Currently Amended) A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly [[.]];

wherein the valve body is a one-piece structure.

Claim 2. (Original) A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes a flange that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by bolting.

Claim 3. (Currently Amended) ~~[[A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes an exterior thread that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded engagement.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes an exterior thread that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded engagement.

Claim 4. (Currently Amended) ~~[[A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with sealing member between the isolation valve assembly and the opening-defining portion.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a sealing member between the isolation valve assembly and the opening-defining portion.

Claim 5. (Currently Amended) ~~[[A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular ring on the isolation valve assembly.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular ring on the isolation valve assembly.

Claim 6. (Currently Amended) ~~[[A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes at least one annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular groove on the isolation valve assembly.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular groove on the isolation valve assembly.

Claim 7. (Currently Amended) ~~[[A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes at least one segmented annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular ring on the isolation valve assembly in a cam lock engagement.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one segmented annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular ring on the isolation valve assembly in a cam lock engagement.

Claim 8. (Currently Amended) ~~[[A valve as recited in claim 1, wherein the opening-defining portion of the valve body includes at least one segmented annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular groove in the isolation valve assembly in a cam lock engagement.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body;

isolator means for enabling a user to selectively stop and unstop fluid communications between the first and second ends of the valve body, including a valve-stopping mechanism removably mounted within the access opening; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to remove the valve-stopping mechanism from the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one segmented annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular groove in the isolation valve assembly in a cam lock engagement.

Claim 9. (Original) A valve as recited in claim 1, wherein the valve-stopping mechanism is removably mounted within the hollow valve body.

Claim 10. (Currently Canceled)

Claim 12. (Currently Canceled)

Claim 13. (Currently Canceled)

Claim 14. (Currently Canceled)

Claim 15. (Currently Canceled)

Claim 16. (Currently Canceled)

Claim 17. (Currently Amended) A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly [[.]];

wherein the valve body is a one-piece structure.

Claim 18. (Original) A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes a flange that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by bolting.

Claim 19. (Original) A valve as recited in claim 17, wherein the valve-stopping mechanism is installed into the hollow valve body through the isolation valve assembly.

Claim 20. (Currently Amended) ~~[[A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes an exterior thread that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded engagement.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes an exterior thread that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded engagement.

Claim 21. (Currently Amended) ~~[[A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes an exterior thread and at least annular O-ring groove that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded and compressed rubber engagement.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes an exterior thread and at least annular O-ring groove that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded and compressed rubber engagement.

Claim 22. (Currently Amended) ~~[[A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes an exterior thread and at least one receiving O-ring surface that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded and compressed rubber engagement.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes an exterior thread and at least one receiving O-ring surface that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body by threaded and compressed rubber engagement.

Claim 23. (Currently Amended) ~~[[A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with sealing member between the isolation valve assembly and the opening-defining portion.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a sealing member between the isolation valve assembly and the opening-defining portion.

Claim 24. (Currently Amended) ~~[[A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular ring on the isolation valve assembly.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular ring on the isolation valve assembly.

Claim 25. (Currently Amended) ~~[[A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes at least one annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular groove on the isolation valve assembly.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating annular groove on the isolation valve assembly.

Claim 26. (Currently Amended) ~~[[A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes at least one segmented annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular ring on the isolation valve assembly in a cam lock engagement.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one segmented annular groove that functions as means for facilitating connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular ring on the isolation valve assembly in a cam lock engagement.

Claim 27. (Currently Amended) ~~[[A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes at least one segmented annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular groove in the isolation valve assembly in a cam lock engagement.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one segmented annular ring that functions as means for facilitating the connection of the isolation valve assembly to the opening-defining portion of the valve body with a mating segmented annular groove in the isolation valve assembly in a cam lock engagement.

Claim 28. (Currently Amended) ~~[[A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes an interior thread that functions as means for facilitating the connection under pressure of the valve-stopping mechanism to the opening-defining portion of the valve body by threaded engagement.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes an interior thread that functions as means for facilitating the connection under pressure of the valve-stopping mechanism to the opening-defining portion of the valve body by threaded engagement.

Claim 29. (Currently Amended) ~~[[A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes an interior thread that functions as means for restraining the connection under pressure of the valve-stopping mechanism to the opening-defining portion of the valve body by threaded engagement and as means for allowing at least one O-ring sealing surface in the opening-defining portion.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes an interior thread that functions as means for restraining the connection under pressure of the valve-stopping mechanism to the opening-defining portion of the valve body by threaded engagement and as means for allowing at least one O-ring sealing surface in the opening-defining portion.

Claim 30. (Currently Amended) ~~[[A valve as recited in claim 17, wherein the opening-defining portion of the valve body includes at least one actuating member which includes threads formed thereon and threadedly mounted in said opening-defining portion so that when activated moves into and out of engagement of the valve-stopping mechanism.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

wherein the opening-defining portion of the valve body includes at least one actuating member which includes threads formed thereon and threadedly mounted in said opening-defining portion so that when activated moves into and out of engagement of the valve-stopping mechanism.

Claim 31. (Currently Amended) ~~[[A valve as recited in claim 17, further comprising at least one segment-engaging element coupled to said segment and slidably mounted in the opening-defining portion of the valve body for engaging and locking said segment in position to restrain the valve-operating mechanism and at least one actuating member including threads formed thereon and threadedly mounted in said opening-defining portion for slidingly actuating said segment engaging member for moving said segment into and out of engagement of the valve-stopping mechanism.]]~~ A valve, comprising:

a valve body having first and second ends, the valve body defining a hollow valve body interior extending between the first and second ends that couples the first and second ends in fluid communications;

an opening-defining portion of the valve body that defines an access opening in the valve body; and

connection-facilitating means on the opening-defining portion of the valve body for facilitating the fluid-tight removable connection of a separate isolation valve assembly to the opening-defining portion of the valve body in a position over the access opening that enables the user to install a valve-stopping mechanism into the access opening through the isolation valve assembly;

further comprising at least one segment-engaging element coupled to said segment and slidably mounted in the opening-defining portion of the valve body for engaging and locking said segment in position to restrain the valve-operating mechanism and at least one actuating member including threads formed thereon and threadedly mounted in said opening-defining portion for slidingly actuating said segment engaging member for moving said segment into and out of engagement of the valve-stopping mechanism.